

AKROMID®

A3 GF 30 1 S3 black (3502)

PA66-I GF30

AKROMID® A3 GF 30 1 S3 black (3502) is a 30% glass fiber reinforced, impact modified Polyamide 6.6. It is characterised by high stiffness and strength as well as a higher impact strength compared to a standard PA 6.6 GF 30. Furthermore, the material is heat stabilised and therefore perfectly suitable for connecting and fixing systems which are used at elevated temperatures in the automotive and electro industry.

Features

heat stabilised 130

impact modified

Properties

Modulus

8.000 MPa

Strength

170 MPa

Impact

100 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

8000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

170 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

4,5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

8200 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

270 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

4,7 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

100 kJ/m²

-30°C | d.a.m.

110 kJ/m²

Charpy notched impact strength	23°C d.a.m.	17 kJ/m²
ISO 179-1/1eA	-30°C d.a.m.	12 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	245 °C
ISO 75		

Melting temperature	DSC, 10K/min	262 °C
ISO 11357-3		

Flammability

Flammability	1,6 mm Wall thickness	HB Class
UL 94		

Burning rate (<100 mm/min)	> 1 mm Thickness	+
FMVSS 302		

General Properties

Density	23°C	1,34 g/cm³
ISO 1183		

Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,7 - 0,9 %

Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



D	Drying time	0 - 4 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	260 - 300 °C
3	Nozzle temperature	270 - 310 °C
4	Melt temperature	280 - 300 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

Diagrams

